Docket No.: HO-P03189US0
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Simon R. Hall

Application No.: 10/540,095   Confirmation No.: 6428

Filed: December 19, 2003   Art Unit: 1794

For: METHOD FOR OPTIMISING DIETS FOR   Examiner: C. D. Sayala
      COMPANION ANIMALS

AMENDED APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under 37 C.F.R. § 41.37(a), this amended brief is filed more than 30 days

after the Notice of Non-Compliant Amendment issued 02 March 2010, and is in furtherance of

said Appeal.

The fees required under 37 C.F.R. § 41.20(b)(2) have been previously submitted.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37

and M.P.E.P. § 1206:

      I.   Real Party In Interest
      II   Related Appeals and Interferences
      III.   Status of Claims
      IV.   Status of Amendments
      V.   Summary of Claimed Subject Matter
      VI.   Grounds of Rejection to be Reviewed on Appeal
      VII.   Argument

I.   REAL PARTY IN INTEREST

The real party in interest for this appeal is:

Mars, Inc.

II.   RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings which will directly

affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III.   STATUS OF CLAIMS

A.   Total Number of Claims in Application

There are 7 claims pending in application. All claims stand Rejected.

B.   Current Status of Claims

1.   Claims canceled: 2, 9, 10

2.   Claims withdrawn from consideration but not canceled: NONE

3.   Claims pending: 1, 3-8

4.   Claims allowed: NONE

5.   Claims rejected: 1, 3-8

C.   Claims On Appeal

The claims on appeal are claims 1, 3-8

IV.   STATUS OF AMENDMENTS

Applicant did not file an Amendment After Final Rejection.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

The present independent claim 1 relates to a method for determining the optimum

macronutrient content of a diet for an individual companion animal, the method comprising the

steps of:

providing, over an extended and preselected period of time, different food compositions

to said animal in which each composition provides an enriched source of fat, protein or

carbohydrate, such that said animal can select and consume different and preferred quantities of

each said food compositions in order to achieve an optimum consumption of fat, protein and

carbohydrate for said animal;

allowing said animal to consume the different and preferred quantities of fat, protein and

carbohydrate from each of said compositions over the extended preselected period of time; and

determining, from the consumed amount of fat, protein and carbohydrate from each of

said compositions, a customized dietary regime that provides the optimum macronutrient content

of a diet for said individual animal. Specification as filed, page 2, lines 15-25.

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO

01/97605 and WO 01/97630 in view of Foreman et al. (US Pub. 2001/0048955) taken with

Jewell et al. (US Patent 6410063), and further in view of Romsos et al. (JAVMA, vol. 182(1),

pp. 41-43,1983) and Wills, Josephine ("Adult Maintenance", BSAVA Manual of Companion

Animal Nutrition &Feeding, Chapter 3, British Small Animal Veterinary Association 1996, pages 44-46). All rejected claims stand and fall together for this appeal.

VII.   ARGUMENT

Claims 1, 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/97605 and WO 01/97630 in view of Foreman et al. (US Pub. 2001/0048955) taken with Jewell et al. (US Patent 6410063), and further in view of Romsos et al. (JAVMA, vol. 182(1), pp. 41-43,1983) and Wills, Josephine ("Adult Maintenance", BSAVA Manual of Companion Animal Nutrition &Feeding, Chapter 3, British Small Animal Veterinary Association 1996, pages 44-46).

Through errors in determining the differences between the claims and the prior art, the Examiner's obviousness analysis is flawed and should be reversed.

The obviousness analysis requires the application of the *Graham* Factors and the reasoning behind the conclusion of obviousness must be explained in relation to the factual predicates relied upon. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). The Examiner's Final Rejection, in substance, addresses the *Graham* factors of relevance. The Examiner clearly articulates her reasoning for concluding the claims are obvious with citation to the alleged predicate factual bases as appropriate. Applicant does not therefore contend the instant rejection is procedurally defective. Rather Applicant contends the Examiner has erred in her reading of the prior art.

1) **Claims 1, 3, 5, 6 and 8 appear to be rejected under 35 U.S.C. 103(a) as being unpatentable over either WO 01/97605 or WO 01/97630 as single references.**

The core of the rejection is a single reference obviousness analysis based on the shared contents of WO 01/97605 and WO 01/97630. The Examiner relies upon the secondary references to modify either of WO 01/97605 or WO 01/97630 to account for the limitations of claim 4 ("learning phase") and claim 7 (25-50% carbohydrate energy). Because the Examiner is mistaken as to the differences between WO 01/97605 and WO 01/97630 and the pending claims, the instant rejection should be reversed.

a) **Graham Factors – Secondary Factors and Level of Ordinary** Skill

Applicant has not put on record objective evidence of nonobviousness. MPEP 2145. The Examiner has not expressed a position regarding the level of ordinary skill and Applicant agrees this factor is not relevant to the pending rejections. 2141.03 (II.).

b) **Graham Factors – Scope and Content of the Prior Art**

The Examiner defines the scope and content of WO 01/97605 and WO 01/97630 at pages 3-4 of the Final Action. Applicant concurs with the Examiner's summary of the references' contents with one exception. The Examiner states that neither reference teaches a "learning phase" as specifically required by claim 4. Final Action, pg. 4, last full paragraph. To the contrary, both references' cited experimental sections *are* a "learning phase" as defined by the current specification. *Compare, e.g.*, WO 01/97605 at Example 1, pg. 8, lines 10-14:

10   Diets were designed containing different levels of the macronutrients protein and fat.
       All diets were isocaloric and contained 3 different ratios of protein to fat calories i.e.
       10%:90%, 40%:60% and 70%:30% respectively (increasing in calories derived
       from protein). All 3 diets were fed in rotation for 30 days, i.e. each cat was fed one
       diet per day; therefore each diet was experienced 10 times. Food was provided for
15   45 minutes in the morning, then the same diet was fed overnight.

with e.g. the specification at [0116] and "*learning/training phase (39d)*" at [0132]:

Diets

       [0116]   Three isocaloric diets were fed, all designed to supply 70 kcal ME
(metabolisable energy) per 100g final product. The diets consisted of a range of ratios of protein
to fat energy (P-F:ER), these being 10% PER/90% FER (a PER thought to be close to the cat's
minimum protein requirement), 40% PER/60% FER (a PER typical for a canned product) and
70% PER/30% FER. In this study, the diets were essentially carbohydrate-free, with the calorie
deficit remaining after inclusion of protein provided by fat calories.

Learning/training phase (39d)

       [0132]   During the learning/training phase, each cat should have received a single
product each day, with the 3 diets fed in daily rotation for 30 days. Each cat should therefore
have experienced each test diet 10 times.

       This is the fundamental error in understanding the scope and content of the prior art that
results in the incorrect rejection at hand.

   c) Graham Factors – Differences Between the Prior Art and the Claims

       The Examiner fails to appreciate the distinction between the invention defined by claim 1
verses the "learning phase" method described in WO 01/97605 and WO 01/97630. As stated
above, the cited art *is* the "learning phase" of current claim 4. This distinct "learning phase"
technique is incorporated into an amalgamated method by claim 4. By necessary implication, the
"learning phase" of the cited art is not the subject matter defined by claim 1. Claim 1 for
instance requires that animals be presented with multiple foods and allowed to select from them.

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This is a fundamentally different methodology than the cited art which requires feeding individual food compositions at separate times. Because the Examiner fails to appreciate the stark differences between the cited art and claim 1, the rejection in unfounded and should be reversed.

The Examiner's confusion is self evident in the Final Action on page 3 where the Examiner states:

> "'[L]earning phase' which is not defined in the specification, but for examination purposes has been given the description at page 5, which is offering a single diet composition at any one feeding 'experience'. The learning phase therefore reads on offering 'the enriched' single food composition for an undefined period of time that is 3 days at least, during which period the bird, fish, cat, dog or horse is 'learning' to eat."

Obviously, the utility and result of the cite art's "learning phase" (incorporated by claim 4) is not to teach an animal how to eat. From the Action, the Examiner apparently only reviewed paragraphs [0021]-[0025] on page five of the application to determine the meaning of "learning phase". Applicant concedes that on this limited basis, the purpose of the "learning phase" is not immediately apparent. Applicant well appreciates the impractical time constraints placed on the Examiner. The Examiner clearly had insufficient time to review the Application thoroughly. Given sufficient time, the Examiner no doubt would have read and appreciated the remaining relevant portions of the disclosure defining the claimed "learning phase". See, e.g., Application paragraphs [0026]-[0028], [0105]-[0106], [0132]-[0136], [0161]-[0166], [0181], [0192], [0195], [0203], [0219]-[0223], etc.; MPEP 2111.01 (IV) ("The specification should also be relied on for more than just explicit lexicography or clear disavowal of claim scope to determine the meaning

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of a claim term when applicant acts as his or her own lexicographer; the meaning of a particular claim term may be defined by implication, that is, according to the usage of the term in the context in the specification.").

Despite the limitations placed on the Examiner, the Examiner correctly construes the "learning phase" to require "offering a single diet composition at any one feeding 'experience'." *Ibid*. What the Examiner fails to fully appreciate is that the "learning period" requires feeding at separate times, a set of diet compositions representing enriched sources of fat, carbohydrates and/or proteins. E.g., Application at [0023]-[0024]; WO 01/97605 at Example 1, pg. 8, lines 10-14. The purpose of this process is to train animals to identify foods on the basis of their macronutrient profiles. See, e.g., Application at [0111]-[0113]. As discussed in the cited art and as cited by the Examiner, one can indeed derive some useful dietary consumption information by applying this "learning phase" approach. E.g., Final Action at pg. 3 ("The patent [WO 01/97605] does disclose a preference of one type of macronutrient over another for different times of the day, thus suggesting that an optimum macronutrient requirement can be determined for the animal."). The instant Specification further validates this prior art technique. See, e.g., [0397] showing that dogs increased consumption of a high fat food product as they learned to identify the food product as an enriched source of fat.

Claim 1 is in contrast directed to an improved technique of ascertaining an optimal dietary macronutrient content profile for an animal. One key distinction of this improved technique is that the "animal can select and consume different and preferred quantities of each said food compositions." Claim 1. It is plainly not possible for an animal to select from the multiple food compositions in the cited art where the animal is offered a single diet composition at a time. *Compare* WO 01/97605 at Example 1, pg. 8, lines 10-14 *with* e.g. the specification at

[0116] and *"learning/training phase (39d)"* at [0132]; *see also* Final Action on pg. 3 (all three reproduced above). The Applicant has of course made this point and even amended claim 1 to try to more clearly convey to the Examiner this distinction. Response filed 17 Feb. 2009, pg. 5-6, bridging; pg. 8, second complete paragraph. The Examiner's position, reproduced below, is again clearly articulated and again predicated on a misunderstanding of the art and the current claims:

> "The Examples of both patents show that 3 diets or 5 diets with 'different levels of the macronutrients protein and fat' and the diets were rotated over a 30-day period so that the animal received one diet per day. There is no stipulation in the claims that such a protocol should be excluded."

Final Action, pg. 9. The Examiner is of course correct in the sense that dependent claim 4 means that the "learning phase" is not excluded from claim 1. However claim 1 requires more than the cited art "learning phase". A "stipulation" of claim 1 is that the "animal can select and consume different and preferred quantities of each said food compositions." This "stipulation" is made clear by application of basic claim differentiation with the learning phase of claim 4 and the very detailed explanation of the invention in the disclosure. The Examiner's error flows from a failure to understand what the "learning phase" of both claim 4 and the cited art is (such as the feeding a single food composition at a time) and thus in turn how it differs from claim 1 (such as providing two or more food compositions and allowing the animal choice).

    d) Errors and Hindsight in the Reasons for Concluding Obviousness

       The Examiner, in the below reproduced alternative, gleans information from the Applicant's disclosure to provide a purely hindsight driven explanation:

> "Even if the reference is interpreted as applicant has, the study still provides insight to one of ordinary skill in the art of the following: offering the animal a

variety of diets of different macronutrient contents (page 8, line 25), determining

the animal's preference for the variety of macronutrients offered based on what it

consumes, (Figs. 2-3) and formulating a dietary regime for the animal based on

this (page 7, lines 8-11). See *In re Hoeschele*, 406 F.2d 1403, 1406-07 (CCPA

1969)("[I]t is proper to take into account not only specific teachings of the

references but also the inferences which one skilled in the art would reasonably be

expected to draw therefrom ...")."

Final Action, pg. 7-8 bridging. Here the Applicant does take issue with the Examiner's

procedure. The Examiner's description of the prior art is correct. However, the claimed

methodology is a patentably distinct technique that involves different steps to achieve the claims'

underlying purpose. A prime example is claim 1's requirement that multiple foods be presented

and the animal be allowed to select from them what to eat. Where is the articulated reasoning

that explains how one of ordinary skill in the art would arrive at the claimed invention starting

from WO 01/97605 and WO 01/97630? *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007).

There is none presented by the Examiner and none to be found in WO 01/97605 and WO

01/97630. Instead, the gap filling information comes only from Applicant's own specification

and is thus impermissible hindsight. The lack of an explanation as to how claim 1 is obvious is

also telling. It implicitly validates the patentability of the instant claim "if the reference is

interpreted as applicant has."

Applicant further submits the Examiner cannot *post hoc* supply the required valid

reasoning. To modify WO 01/97605 and WO 01/97630 to present more than one food

composition at a time to the animals would fundamentally alter the principle of operation of the

"learning phase" process used therein. MPEP 2143.01 (VI.). There is no basis in the cited WO

01/97605 and WO 01/97630 to make such a fundamental change and "common sense" certainly does not lead one such a change.

Conclusion

The instant rejection is founded on a fundamental misunderstanding of both the claims and the cited art. The analysis behind the obviousness rejections thus flawed, in view of the correct interpretation of the claims and cited art, and consequently lacks supporting factual predicates and a valid articulated reasoning. Because the rejection is in error, the Board should reverse the rejection. Applicant believes no fee is due with this amended appeal brief. However, if a fee is due, please charge our Deposit Account No. 06-2375, under Order No. HO-P03189US0 from which the undersigned is authorized to draw.

VIII.   CLAIMS APPENDIX

A copy of the claims involved in the present appeal is attached hereto as Appendix A.

IX.   EVIDENCE APPENDIX

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

X.   RELATED PROCEEDINGS APPENDIX

No related proceedings are referenced in II. above, hence copies of decisions in related proceedings are not provided.

Dated: March 8, 2010   Respectfully submitted,

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APPENDIX A

A complete listing of the appeal claims and their statuses follows.

1. (rejected) A method for determining the optimum macronutrient content of a diet for an individual companion animal, the method comprising the steps of:

> providing, over an extended and preselected period of time, different food compositions to said animal in which each composition provides an enriched source of fat, protein or carbohydrate, such that said animal can select and consume different and preferred quantities of each said food compositions in order to achieve an optimum consumption of fat, protein and carbohydrate for said animal;

> allowing said animal to consume the different and preferred quantities of fat, protein and carbohydrate from each of said compositions over the extended preselected period of time; and

> determining, from the consumed amount of fat, protein and carbohydrate from each of said compositions, a customized dietary regime that provides the optimum macronutrient content of a diet for said individual animal.

2. (Cancelled)

3. (rejected) The method, as claimed in claim 1, wherein the compositions which provide an enriched source of fat, protein or carbohydrate are dried, wet or semi-moist food products.

4. (rejected) The method, as claimed in claim 1, wherein the extended and preselected period of time includes a learning phase of a period of 3 days, or more.

5. (rejected) The method, as claimed in claim 1, wherein the source of fat comprises from 50 to 75% fat on a fat:energy ratio.

6. (rejected) The method, as claimed in claim 1, wherein the source of protein comprises from 50 to 75% protein on a protein:energy ratio.

7. (rejected) The method, as claimed in claim 1, wherein the source of carbohydrate comprises from 25 to 50% carbohydrate on a carbohydrate:energy ratio.

8. (rejected) The method as claimed in claim 1, wherein the companion animal is a cat, dog, horse, fish or bird.